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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/691,267	10/22/2003	Eric A. Shank	10030564-1	4937

7590 12/30/2005  
AGILENT TECHNOLOGIES, INC.  
Legal Department, DL 429  
Intellectual Property Administration  
P.O. Box 7599  
Loveland, CO 80537-0599

EXAMINER

KRAMSKAYA, MARINA

ART UNIT PAPER NUMBER

2858

DATE MAILED: 12/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/691,267

Applicant(s)

SHANK ET AL.

Examiner

Marina Kramskaya

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on 07 October 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-8 is/are allowed.
- 6) ☒ Claim(s) 9-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10/22/2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 9, 11-15, 17-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Chong, US 6,417,672.

As per Claims 9 & 15, Chong discloses an interface (**200**) for a tester comprising:  
a table (see FIG. 5) that defines a plurality of mixing products (i.e. plurality of tests defined in **518** & **520**) that can be produced by mixing signals (in particular “signal to noise” test function mixes signals), the table including labels (in **520**) for the plurality of mixing products (i.e. type of test);

a first display interface (**214**) that displays at least a subset of the labels (displays menus: column 13, lines 56-63); and,

a processor (**310**) that, in response to a user selecting (using keypad **216**) a first mixing product (i.e. type of test) from the plurality of mixing products (i.e. plurality of test types), calculates appropriate frequencies (i.e. predetermined frequencies, FIG. 8B, and ABS. lines 2-3) for the first mixing product (i.e. test type), and determines a

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measurement configuration for the first mixing product (determines the “test circuit”: one of **322**, **324**, or **326**).

As per Claims, 11 & 17, Chong further discloses an interface, wherein when determining a measurement configuration for the first mixing product (i.e. test type), the processor uses measurement parameters obtained from the user (user menu for “test parameters” in block 522, FIG. 5).

As per Claims 12 & 18, and 13 & 19 Chong discloses a method and a testing interface as in claims 1, 9, and 15 wherein (b1) includes using parameters for the device under test and measurement parameters obtained from the user (user input menus **522**).

As per Claims 14 & 20, Chong further discloses an interface, wherein the processor (**310**) sends commands (via bus **320**) to tester hardware (test circuits **322**, **324**, **326**) to make measurements.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 10 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chong, US 6,417,672, in view of Clark et al., US 6,064,694.

As per Claims 10 and 16, Chong discloses a method and a tester interface as in claim 9 and 15.

Chong does not disclose the plurality of mixing products that include at least one of the following measurements:

Match Input;

Match Output;

Isolation In → out;

Isolation Out → In;

Conversion Gain vs. Input Power;

Input Match versus Input Power;

Spur Table;

Image Rejection;

Swept Spur;

Conversion Gain;

Gain compression.

Clark discloses the plurality of mixing products that include at least one of the following measurements, in particular:

Match Input (column 1, lines 47-48);

Match Output (column 1, lines 47-48);

Therefore, it would have been obvious to a person of ordinary skill in the art to incorporate at least one of the mixing product measurements, such as Match Input and Match Output, as taught by Clark, in the interface for a tester of Chong, in order to obtain an amplitude and phase match between the various devices under test (Clark: column 1, lines 47-48).

### ***Allowable Subject Matter***

5. Claims 1-8 are allowed.
6. The following is a statement of reasons for the indication of allowable subject matter: Although, the Clark (US 6,064,694) reference teaches of testing a frequency converter device by mixing signals, and the Chong (US 6,417,672) reference teaches of a display interface for a tester, the prior art fails to teach the particulars of displaying labels for a plurality of mixing products that can be produces by mixing signals within a frequency converter.

### ***Response to Arguments***

7. Applicant's arguments filed 09/12/2005 have been fully considered but they are not persuasive.

As per the applicants arguments that Chong does not teach the use of "mixing products" in the tester interface (450), since no special definition for "mixing products" has been provided, the examiner used a broad interpretation wherein "mixing products"

have been interpreted as a plurality of test types where signals are mixed. The newly added limitation to claim 1 limited mixing products to mixed frequency signals; however, the limitations of the "mixing products" in claims 9 and 15 remain broadly interpreted as above.

### ***Conclusion***

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marina Kramskaya whose telephone number is (571)272-2146. The examiner can normally be reached on M-F 7:00-4:00.

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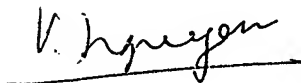
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diane Lee can be reached on (571)272-2399. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Marina Kramskaya  
Examiner  
Art Unit 2858



MK



**VINCENT Q. NGUYEN**  
**PRIMARY EXAMINER**